

Title (en)

SENSOR AND SENSOR SYSTEM FOR LIQUID CONDUCTIVITY, TEMPERATURE AND DEPTH

Title (de)

SENSOR UND SENSORSYSTEM FÜR DIE LEITFÄHIGKEIT, TEMPERATUR UND TIEFE VON FLÜSSIGKEITEN

Title (fr)

DETECTEUR ET SYSTEME DE DETECTION DE LA CONDUCTIVITE, DE LA TEMPERATURE ET DE LA PROFONDEUR DE LIQUIDES

Publication

**EP 1305609 A1 20030502 (EN)**

Application

**EP 01934972 A 20010430**

Priority

- US 0114059 W 20010430
- US 56284900 A 20000501

Abstract (en)

[origin: WO0186274A1] Liquid conductivity and temperature are measured in respective sensitivity fields that are collocated i.e., in volumes that nearly match by mathematical, geometrical, or functional criteria. Collocation is as distinct from mere adjacency or proximity; and is with respect to measurement volumes, not measuring hardware. Preferably pressure too is measured with sensitivity very generally collocated to the conductivity and temperature sensitivity. Preferably, respective temporal/spatial bandwidths of the two or three sensors are matched. Preferably the pressure sensor is a MEMS transducer, the conductivity sensor is a four-terminal device, the thermometer is a thermistor encapsulated in a silkscreened glass wall, and circuits: compensate for time lag between conductivity and temperature measurement; remove artifacts due to detritus in or near either sensor; and derive secondary parameters of the liquid.

IPC 1-7

**G01N 27/02**; **G01N 27/42**; **G01N 27/26**; **H05K 3/20**; **G01N 27/07**

IPC 8 full level

**G01D 21/02** (2006.01); **G01N 27/06** (2006.01); **G01N 27/07** (2006.01); **G01N 33/18** (2006.01)

CPC (source: EP US)

**G01N 27/06** (2013.01 - EP US); **G01N 33/18** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

**WO 0186274 A1 20011115**; AU 6111201 A 20011120; EP 1305609 A1 20030502; EP 1305609 A4 20050907; JP 2004538440 A 20041224; US 2002135377 A1 20020926; US 2004232923 A1 20041125; US 6404204 B1 20020611; US 6577134 B2 20030610

DOCDB simple family (application)

**US 0114059 W 20010430**; AU 6111201 A 20010430; EP 01934972 A 20010430; JP 2001583167 A 20010430; US 1093601 A 20011206; US 1332001 A 20011207; US 56284900 A 20000501